

## CLAIMS

### I CLAIM:

1. A voting system for recording a voter's selection of one candidate from a slate of one or more candidates, comprising

a hand-markable physical ballot adapted to receive at least one voter-detectable mark indicating the voter's selection of a candidate from the slate of one or more candidates, said ballot providing the names of and an associated marking space for each candidate in said slate of candidates;

a ballot marking terminal for displaying to the voter one or more menus presenting a choice of candidates from said slate of candidates, and for receiving an input from the voter indicating the selection of a candidate from said slate of candidates, said ballot marking terminal receiving said ballot and in response to said voter input, providing a voter-detectable mark in the marking space corresponding to said selected candidate and returning said ballot to the voter; and

a ballot scanning device for receiving said ballot and recording said voter-detectable mark in said marking space associated with said selected candidate as a vote cast for said selected candidate.

2. A voting system as defined in claim 1 wherein said physical ballot is a paper ballot.

3. A voting system as defined in claim 2 wherein said ballot marking terminal includes a print head and said voter-detectable mark is a visually-detectable mark.

4. A voting system as defined in claim 1 wherein said menus presented to the voter are coordinated visual and aural menus;

5. In a voting system for recording a voter's selection of one candidate from a slate of one or more candidates on a hand-markable paper ballot adapted to receive one or more voter-detectable marks indicating a voter's selection of a candidate from a slate of one or more candidates, the ballot providing the names of and an associated marking space for each candidate in said slate of candidates, the ballot being readable by a ballot scanning device receiving the ballot and recording the voter-detectable mark in the marking space associated with the selected candidate as a vote cast for the selected candidate, the improvement comprising:

a ballot marking terminal for providing to the voter one or more menus presenting a choice of candidates from the slate of candidates, and for receiving an input from the voter indicating the selection of a candidate from said slate of candidates, said ballot marking terminal receiving the ballot and in response to said voter input to said voting terminal, providing a voter-detectable mark in the marking space corresponding to said selected candidate.

6. A voting system as defined in claim 5 wherein said physical ballot is a paper ballot.

7. A voting system as defined in claim 6 wherein said ballot marking terminal includes a print head and said voter-detectable mark is a visually-detectable mark.

8. A voting system as defined in claim 5 wherein said menus presented to the voter are coordinated visual and aural menus;

9. A ballot marking terminal for use in conjunction with a hand-markable physical ballot adapted to receive at least one voter-detectable mark indicating a voter's selection of a candidate

from a slate of one or more candidates, the ballot providing the names of and an associated marking space for each candidate in the slate of candidates, the ballot marking terminal comprising:

a transport mechanism for receiving the ballot;

a user interface providing to the voter one or more menus presenting a choice of candidates from the slate of candidates, and for receiving an input from the voter indicating the voter's selection of a candidate from the slate of candidates;

a marking head responsive to the voter input for providing a voter-detectable mark in the marking space corresponding to the selected candidate.

10. A ballot marking terminal as defined in claim 9 wherein said physical ballot is a paper ballot.

11. A voting system as defined in claim 9 wherein said menus presented to the voter are coordinated visual and aural menus;

12. A method for recording a voter's selection of one candidate from a slate of one or more candidates, comprising the steps of:

providing a hand-markable physical ballot adapted to receive at least one voter-detectable mark indicating the voter's selection of a candidate from the slate of one or more candidates, the ballot providing the names of and an associated marking space for each candidate in the slate of candidates;

providing to the voter by means of a ballot marking terminal one or more menus presenting a choice of candidates from the slate of candidates, and receiving an input from the voter indicating the selection of a candidate from the slate of candidates;

the ballot marking terminal in response to the voter input marking a voter-detectable mark in the marking space corresponding to the selected candidate; and

receiving the ballot in a ballot scanning device and recording the voter-detectable mark in the marking space associated with the selected candidate as a vote cast for the selected candidate.

13. The method defined in claim 12 wherein said physical ballot is a paper ballot.

14. The method defined in claim 13 wherein said ballot marking terminal includes a print head, and said voter-detectable mark is a visually-detectable mark.

15. A ballot marking terminal for use in conjunction with at least first and second different hand-markable physical ballots, said first ballot containing a first format code and providing a first slate of one or more candidates for selection, said second ballot containing a second format code and providing a second slate of one or more candidates for selection different from said first slate of candidates, each of said ballots being adapted to receive at least one voter-detectable mark indicating a voter's selection of a candidate from the respective slate of candidates, said terminal comprising:

a ballot transport mechanism adapted to receiving one of said ballots from the voter;

a memory device for storing first and second ballot format data in association with said first and second ballot format codes, respectively;

a ballot interface device for reading the format codes on said ballot received by said transport mechanism;

a user interface responsive to the format code read by said ballot interface device and the associated format data in said memory device for providing to the voter one or more menus presenting a choice of candidates from the slate of candidates provided on the received ballot;

the user interface receiving an input from the voter indicating the voter's selection of a candidate from the slate of candidates;

a marking device responsive to said voter input and said associated format data from said memory device for marking said received ballot to indicate the candidate selected by the voter; and

said ballot transport mechanism being further adapted to return the marked ballot to the voter.

16. A ballot marking terminal as defined in claim 15 wherein said menus provided to the voter are coordinated visual and aural menus.

17. A ballot marking terminal as defined in claim 15 wherein said physical ballots are paper ballots, and said format codes comprise printing on said ballots.

18. A ballot marking terminal as defined in claim 17 wherein said ballot interface device comprises an optical scanner.

19. A ballot marking terminal as defined in claim 15 wherein said user interface provides both visual and aural menus to the voter.

20. A ballot marking terminal as defined in claim 15 or 19 wherein said user interface comprises a touch screen display.
21. A ballot marking terminal as defined in claims 15 or 19 wherein said user interface includes voter-actuable UP, DOWN, and SELECT key switches for receiving said voter input from said menu.
22. A ballot marking terminal as defined in claims 15 or 19 wherein said user interface includes voter-actuable UP, DOWN, FORWARD, BACK and SELECT key switches for receiving said voter input from said menu.
23. A ballot marking terminal as defined in claims 15 or 19 wherein said user interface includes an ADA input providing a uni-directional closed-loop scrolling function through said menu and a select function for receiving a voter selection from said menu.
24. A ballot marking terminal as defined in claim 15 wherein said ballots each include a marking space in association with each of said candidates, and said ballot interface device comprises a scanner which scans said marking spaces on said ballot received by said transport, and said user interface is inhibited from receiving a voter input in the event of one or more of said marking spaces being marked.
25. A ballot marking terminal as defined in claim 15 wherein said ballots each include a marking space in association with each of said candidates, and said ballot interface device comprises a scanner which scans said marking spaces on said ballot received by said transport, said marking device being further responsive to the location of said marking spaces as sensed by said ballot interface for marking said received ballot.

26. A ballot marking terminal as defined in claim 15 wherein said ballots each include a marking space in association with each of said candidates, and said ballot interface device comprises a scanner which scans said marking spaces on said ballot received by said transport, said ballot marking terminal includes an analysis circuit for analyzing the output of said scanner for physical irregularities in said received ballot, and said ballot transport mechanism is further adapted to reject a ballot having physical irregularities in response to a control effect from said analysis circuit.

27. A ballot marking terminal as defined in claim 15 wherein said memory device is a flash card.

28. A voting system for recording a voter's selection of one candidate from a slate of one or more candidates, comprising:

- a first hand-markable physical ballot containing a first format code and providing a first slate of one or more candidates;

- a second hand-markable physical ballot containing a second format code and providing a second slate of one or more candidates different from said first slate of candidates;

- each of said ballots being adapted to receive at least one voter-detectable mark indicating a voter's selection of a candidate from the respective slate of candidates;

- a ballot marking terminal comprising a ballot transport mechanism adapted to receiving one of said ballots from the voter;

- a memory device within said terminal for storing first and second sets of ballot format data in association with said first and second ballot format codes, respectively;

a ballot interface device within said terminal for reading the format codes on said ballot received by said transport mechanism;

a user interface within said terminal responsive to the format code read by said ballot interface device and the associated format data in said memory device for providing to the voter one or more menus presenting a choice of said candidates from the slate of candidates provided on the received ballot;

said user interface receiving an input from the voter indicating the voter's selection of a candidate from the slate of candidates;

a marking device within said terminal responsive to said voter input and said associated set of format data from said memory device for marking said received ballot to indicate the candidate selected by the voter;

said ballot transport mechanism being further adapted to return the marked ballot to the voter; and

a ballot scanning device for receiving said selected ballot and recording said voter-detectable mark in the marking space associated with the selected candidate as a vote for the selected candidate.

29. A voting system as defined in claim 28 wherein said menus provided to the voter are coordinated visual and aural menus.

30. A voting system as defined in claim 28 wherein said physical ballots are paper ballots, and said format codes comprise printing on said ballots.



31. A voting system as defined in claim 30 wherein said ballot interface device comprises an optical scanner.
32. A voting system as defined in claim 28 wherein said user interface provides both visual and aural menus to the voter.
33. A voting system as defined in claim 28 or 32 wherein said user interface comprises a touch screen display.
34. A voting system as defined in claims 28 or 32 wherein said user interface includes voter-actuable UP, DOWN, and SELECT key switches for receiving said voter input from said menu.
35. A voting system as defined in claims 28 or 32 wherein said user interface includes voter-actuable UP, DOWN, FORWARD, BACK and SELECT key switches for receiving said voter input from said menu.
36. A voting system as defined in claims 28 or 32 wherein said user interface includes an ADA input providing a uni-directional closed-loop scrolling function through said menu and a select function for receiving a voter selection from said menu.
37. A voting system as defined in claim 28 wherein said ballots each include a marking space in association with each of said candidates, and said ballot interface device comprises a scanner which scans said marking spaces on said ballot received by said transport, and said user interface is inhibited from receiving a voter input in the event of one or more of said marking spaces being marked.
38. A voting system as defined in claim 28 wherein said ballots each include a marking space in association with each of said candidates, and said ballot interface device comprises a scanner

which scans said marking spaces on said ballot received by said transport, said marking device being further responsive to the location of said marking spaces as sensed by said ballot interface for marking said received ballot.

39. A voting system as defined in claim 28 wherein said ballots each include a marking space in association with each of said candidates, and said ballot interface device comprises a scanner which scans said marking spaces on said ballot received by said transport, said ballot marking terminal includes an analysis circuit for analyzing the output of said scanner for physical irregularities in said received ballot, and said ballot transport mechanism is further adapted to reject a ballot having physical irregularities in response to a control effect from said analysis circuit.

40. A voting system as defined in claim 28 wherein said memory device is a flash card.

41. A method of recording a voter's selection of one candidate from a slate of one or more candidates, comprising the steps of:

providing a first hand-markable physical ballot containing a first format code and  
providing a first slate of one or more candidates;

providing a second hand-markable physical ballot containing a second format code and  
providing a second slate of one or more candidates different from said first slate of candidates;

each of said ballots being adapted to receive at least one voter-detectable mark indicating  
a voter's selection of a candidate from the respective slate of candidates;

providing a ballot marking terminal including a ballot transport mechanism receiving one  
of said ballots from the voter;

storing within said terminal first and second sets of ballot format data in association with said first and second ballot format codes, respectively;

reading the format codes on said ballot received by said transport mechanism;

providing to the voter a user interface within said terminal responsive to the format code read by said ballot interface device and the associated format data in said memory device one or more menus presenting a choice of said candidates from the slate of candidates provided on the received ballot;

receiving an input from the voter indicating the voter's selection of a candidate from the slate of candidates;

marking said received ballot responsive to said voter input and said associated set of format data from said memory device to indicate the candidate selected by the voter;

returning the marked ballot to the voter; and

scanning said selected ballot and recording said voter-detectable mark in the marking space associated with the selected candidate as a vote for the selected candidate.

42. A method of voting as defined in claim 41 including the additional step of providing are coordinated visual and aural menus to the voter.

43. A method of voting as defined in claim 41 including the additional step of providing paper ballots, and printing said format codes on said ballots.

44. A method of voting as defined in claim 43 wherein said ballot format codes are read by optical scanning.

45. A method of voting as defined in claim 41 including the additional steps of providing a marking space on said ballots in association with each of said candidates, scanning said marking spaces on said ballot received by said transport, and inhibiting voter input in the event one or more of said marking spaces is marked.
46. A method of voting as defined in claim 41 including the additional steps of providing a marking space on said ballots in association with each of said candidates, scanning said marking spaces on said ballot received by said transport, and marking said received ballot responsive to the location of said marking spaces as sensed by said scanning.
47. A method of voting as defined in claim 41 including the additional steps of providing a marking space on said ballots in association with each of said candidates, and scanning said marking spaces on said ballot received by said transport, analyzing the output of said scanner for physical irregularities in said received ballot, and rejecting a ballot having physical irregularities in response to said analysis.
48. A method of voting as defined in claim 41 including the additional steps of storing said ballot format data in a flash card.